REMARKS

This Amendment and Request for Reconsideration ("Amendment") is in response to the December 29, 2004 Office Action ("Office Action"). Claims 18-30 are pending, claims 1-17 were previously withdrawn from consideration, as non-elected group I.

SUPPORT

Amendments to the Specification

The paragraph of the specification at page 15, line 29 through page 16, line 13 was amended to correct a typographical error. Support for this change is found in the original specification. No new matter is added.

CLAIM REJECTIONS

In the Office Action, claims 18, 22, 25, 26, 28, 29, and 30 stand rejected under 35 U.S.C. § 102 (b) as allegedly being anticipated by Gordon et al. (US 5,763,332). Claims 19 and 20 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gordon et al. (5,763,332) in view of Bolton et al. (US 4,447,924). Claims 21 and 27 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gordon et al. (5,763,332) in view of Bafford et al. (US 5,089,296). Claims 23 and 24 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gordon et al. (5,763,332). Applicants respectfully assert that all of the claims comply with 35 U.S.C. § 102 (b), 35 U.S.C. § 103(a) and all of the claims are allowable.

The Claims are Not Anticipated

Claims 18, 22, 25, 26, 28, 29, and 30 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Gordon et al. (US 5,763,332). The Office Action contends that Gordon et al. disclose an apparatus comprising a source of a substrate including a hydrophobic web and a water-dispersible binder, a pair of press rolls, and a

solution applicator for an aqueous wetting solution, such that a web can be made to have a moisture add-on of at least 25%. The rejection of the claims as anticipated by Gordon et al. is respectfully traversed. The applied reference does not disclose each and every element of the claims.

First, Gordon et al. do not disclose a water-dispersible binder in combination with a hydrophobic web. As stated at page 4 lines 20-25 of this application, the "basesheet may contain a binder, for example .... a water-dispersible binder, such as a temperature-sensitive water dispersible binder or an ion-sensitive water dispersible binder. Ion-sensitive water-dispersible binders, such as those disclosed in the above-referenced co-pending patent applications, provide for water dispersibility of 80% or greater." The referenced patent applications, some of which have issued as patents, include: "serial numbers 09/565,125 and 09/564,531-filed May 4, 2000; in U.S. Patent Nos. 6,683,143 B1; 6,429,261 B1; 6,599,848 B1; 6,444,214 B1; 6,713,414 B1; 6,548,592 B1; 6,579,570 B1; 6,653,406 B1; and 6,537,663 B1; in U.S. Patent No. 6,423,804 B1; and in application serial number 09/900,698, filed July 6, 2001, the disclosures of which are incorporated herein by reference." (page 1, lines 24-29, as amended 9/30/04).

These patents and co-pending applications discuss water-dispersible binders which address the problem of creating a web which will readily disperse or disintegrate after use, such as when flushed down the toilet, for example, but which still have sufficient in-use strength. The fact that a binder has solubility in water does not make it a water-dispersible binder as defined in the aforementioned patents and applications incorporated by reference. Water-dispersible binders impart in-use strength and disperse or disintegrate after use. For example, the ability of temperature-sensitive water-dispersible binders to bind is dependent upon temperature. As stated in US Patent 6,429,261, column 1, lines 55-59:

> [o]ne class of binder compositions includes polymeric materials having inverse solubility in water. These binder compositions are insoluble in warm water, but are soluble in cold water, such as found in a toilet.

As such, in warm water, the temperature-sensitive water-dispersible binder is insoluble and can impart in-use strength to the web or substrate. When exposed to cold water, such as during disposal of a wet wipe, for example, the temperature-sensitive water-dispersible binder becomes soluble and disperses such that the web or substrate disintegrates.

Ion-sensitive water-dispersible binders act in a similar fashion except that the ability of ion-sensitive water-dispersible binders to bind is dependent upon the type and concentration of an ion. As stated in US Patent 6,429,261 at column 3, lines 39-44:

> ion-sensitive polymer formulations of the present invention have a "trigger property," such that the polymers are insoluble in a wetting composition comprising ions of a particular type and concentration, ...but can be soluble when diluted with water...

As such, for a particular ion or ion concentration, the ion-sensitive water-dispersible binder is insoluble during use and can impart in-use strength to the web or substrate. When the ion concentration is diluted, such as during disposal of a wet wipe in water, for example, the ion-sensitive water-dispersible binder becomes soluble and disperses such that the web or substrate disintegrates.

While these examples are non-limiting, they are provided to demonstrate aspects of water-dispersibility. As such these water-dispersible binders, provide in-use strength to the web or substrate to which they are treated, but then are dispersible under specific water conditions such as typical disposal conditions for the web or substrate.

Gordon (column 10, lines 6-65) teaches the use of wet and dry strength resins in combination with the web or substrate, but is silent with respect to water-dispersible binders. The Office Action specifically cites "starch as a water dispersible binder." Although Gordon teaches starch binders "as characterized by water solubility, and hydrophilicity" (column 10, line 67 to column 11, line 1) it is silent with respect to water-dispersibility as defined in the aforementioned patents and applications incorporated by reference. Specifically, Gordon does not teach that the starch binder will disperse under typical disposal conditions for the web or substrate.

Second, Gordon et al. do not disclose an aqueous wetting solution. With respect to the aqueous wetting solution, the Office Action contends that the emulsion of Gordon

et al. "comprises water that can comprise up to 92% of the emulsion ..." Applicants agree that the Gordon emulsion can comprise a substantial amount of water. However, Gordon discloses an emulsion whereas this application claims a solution. An emulsion as defined in *The American Heritage® Dictionary of the English Language, Fourth Edition*, is:

> A suspension of small globules of one liquid in a second liquid with which the first will not mix.

A solution as defined in *The American Heritage® Dictionary of the English Language, Fourth Edition*, is:

> A homogeneous mixture of two or more substances, which may be solids, liquids, gases, or a combination of these.

An emulsion is inherently different from a solution in that the components of an emulsion will not mix. In contrast, in a solution, the components are completely mixed such as to be homogeneous. Aside from the rudimentary differences in the definition of a solution vs. an emulsion, the properties of emulsions and solutions are inherently different. Gordon cites that the high internal phase emulsion may be applied in a "plastic state" (column 18, lines 42-43). An aqueous solution, such saline, for example, would not be confused with plastic. As such, the Gordon emulsion exhibits properties such as a "plastic state" which are not consistent with an aqueous solution.

Further evidence that the Gordon emulsion is contrary to an aqueous solution is provided in the description of the emulsion. The Gordon emulsion comprises (1) a continuous solidified external lipid phase; (2) an emulsifier; and (3) an internal polar phase. (Gordon, column 11, lines 62-65) The "continuous lipid phase is what keeps the dispersed internal polar phase from being prematurely released...." (Gordon, column 12, lines 9-11). As such, the internal polar phase or aqueous phase cannot interact with other surfaces because it is shielded or encapsulated by the lipid phase. "The major constituent of this continuous lipid phase is a waxy lipid material." (Gordon, column 12, lines 18-19) Lipids are hydrophobic and waxy lipids are even more so. This hydrophobic property is conferred on the emulsion due to the encapsulating nature of the lipid phase. The hydrophobic property of the emulsion is

particularly relevant to the Gordon disclosure, because it is the hydrophobic interactions of the emulsion and hydrophobic web which allow the emulsion to be retained to the surface of the web. In contrast, aqueous solutions are hydrophilic throughout and on the surface of the solution. Thus, when an aqueous solution comes in contact with a hydrophobic web, the aqueous solution repels coating the web because hydrophobic and hydrophilic substances are known to be repel each other.

The above discussion demonstrates the differences between an emulsion and an aqueous solution. Regardless of whether the major component of the emulsion is water, an emulsion is not equivalent to a solution as defined by the dictionary definitions as well as by the exhibited properties. As such the emulsion of Gordon et al. does not read on the aqueous wetting solution of this application.

Third, Gordon et al. do not disclose an aqueous wetting solution that is delivered to a web, wherein the web can absorb the solution. Even if the disclosure of Gordon (column 11, lines 62-65; column 14, lines 1-2; and column 13, lines 52-63) had been incorrectly assumed to disclose an aqueous wetting solution, Gordon Figures 3-6 clearly depict the applied emulsion as a layer. The text describes these as an "emulsion layer" or "layer of emulsion" and also refers to a hydrophobic layer. (column 4, line 63 to column 5, line 1-49). Clearly the emulsion layer is adjacent to the hydrophobic layer, but not absorbed by the hydrophobic layer as disclosed in the drawings and the text.

In contrast, this application discloses "...a solution applicator which delivers an aqueous wetting solution to the web; wherein the web ....passing between the press rolls can absorb the solution...." (claim 18) In fact, pressure can be applied to force absorption. As stated on page 11, lines 6-7, a "hydrophobic web material can absorb an aqueous wetting solution rapidly if the wetting solution is forced into the web by an applied pressure." As such, this application discloses that the aqueous solution is absorbed by the web, which is contrary to forming a layer on the web. Thus, Gordon does not teach absorption into the web.

Fourth, with respect to "a pair of press rolls" (claim 18), applicants respectfully point out that in Figure 2 of Gordon, 130 and 134 are gravure presses which each contain an anilox cylinder and a print plate cylinder (column 20, lines 14-19). Gravure presses have etched cylinders which retain a coating such as the Gordon emulsion in the recesses created by etching. The coating is then transferred from the recesses to the surface of the web. Gravure presses are typically used in the printing industry to apply ink to the surface of a paper web. In contrast, press rolls are used to impart pressure. The press rolls of this apparatus are "used to maximize the liquid which is absorbed by the web." (page 11, lines 24-25) As such, press rolls are used to force liquid through the web, whereas gravure presses apply coatings to the surface of the web, and therefore press rolls are not equivalent to gravure presses.

Fifth, with respect to claim 25, applicants respectfully point out that 138, 146 and 142,150 are not small press rolls and large press rolls, respectively. As mentioned previously, Figure 2 of Gordon, shows gravure presses 130 and 134. As stated at column 20, line 15-19:

> Press 130 consists of a smaller anilox cylinder 138 and a larger print plate cylinder 142; pres 134 similarly consists of a smaller anilox cylinder 146 and a larger print plate cylinder 150.

As such 138 and 146 are anilox cylinders and 142 and 150 are print plate cylinders and not press rolls, and therefore cannot be a first and second pair of press rolls.

In view of the discussion presented herein above, applicants respectfully assert that the claims meet the requirements of 35 U.S.C. § 102 (b) and request that this section 102 (b) rejection be withdrawn.

The Claims are Not Obvious

Claims 19 and 20 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Gordon et al (5,763,332) in view of Bolton et al (4,447,924). The Office Action contends that Bolton et al. disclose the use of a spray boom or drool bar to wet a web and that the combination with the apparatus of Gordon would provide the apparatus as claimed.

The rejection is respectfully traversed, as the applied references fail to provide each and every element of the claim. Specifically, as presented previously, the Gordon reference does not teach a water-dispersible binder in combination with a hydrophobic web, an aqueous wetting solution that is delivered to a web, wherein the web can absorb the solution, and a pair of press rolls. The combination of Gordon with the spray boom or drool bar of Bolton et al. reference would likewise not teach each and every element of claims 19 and 20. Accordingly, a prima facie case of obviousness has not yet been presented, and Applicants respectfully request that the Examiner withdraw this rejection.

Claims 21 and 27 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Gordon et al (5,763,332) in view of Bafford et al (5,089,296). The Office Action contends that Bafford et al. (1) disclose the use of a die slot or distribution header, and (2) teach supplying a solution or emulsion in a nip to enable collapse of the emulsion and absorbance. The Office Action further contends that the combination of Bafford with the apparatus of Gordon would provide the apparatus as claimed.

The rejection is respectfully traversed, as the applied reference fails to provide each and every element of the claim. Specifically, as presented previously, the Gordon reference does not teach a water-dispersible binder in combination with a hydrophobic web, an aqueous wetting solution that is delivered to a web, wherein the web can absorb the solution, and a pair of press rolls. The combination of Gordon with the die slot or distribution header of Bafford et al. reference would likewise not teach each and every element of claims 21 and 27. Accordingly, a prima facie case of obviousness has not yet been presented, and Applicants respectfully request that the Examiner withdraw this rejection.

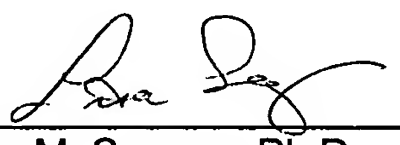
Claims 23 and 24 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Gordon et al (5,763,332). The Office Action contends that it would have been obvious to one of ordinary skill in the art to set the nip area to 0.01 to 1.0 mm and to provide a press roll hardness of about 70 to about 95 Shore A durometer.

The rejection is respectfully traversed, as the applied reference fails to provide each and every element of the claim. Specifically, as presented previously, the Gordon reference does not teach a water-dispersible binder in combination with a hydrophobic web, an aqueous wetting solution that is delivered to a web, wherein the web can absorb the solution, and a pair of press rolls. Accordingly, a prima facie case of obviousness has not yet been presented, and Applicants respectfully request that the Examiner withdraw this rejection.

CONCLUSION

Applicants believe that currently pending Claims 18-30 are patentable. Applicants respectfully request that the Examiner grant early allowance of this application. The Examiner is invited to contact the undersigned agent for the Applicants via telephone if such communication would expedite this application.

Respectfully submitted,



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